

U.S. Application No. 10/036,338  
Amendment dated June 30, 2004  
Reply to Office Action dated April 2, 2004

### REMARKS/ARGUMENTS

Reconsideration and continued examination of this application are respectfully requested.

The amendment to the claims is editorial in nature and/or further defines what the applicants regard as their invention. Claim 41 has been amended to more particularly point out the present invention through the inclusion of the subject matter of claim 42. Claim 42 has been canceled. Claim 46 has been rewritten in independent form and amended. Full support for the amendment can be found, for example, at pages 15-16 of the present application. Accordingly, no question of new matter should arise and entry of the amendment is respectfully requested.

Claims 41, 43-58, and 60-62 are pending in the present application. Claims 42 and 59 have been canceled.

At page 2 of the Office Action, the Examiner rejects claims 41, 46-48, and 60 under 35 U.S.C. §102(e) as being anticipated by Fu (U.S. Patent No. 6,042,706). The Examiner asserts that Fu teaches a hollow sputtering target having an annular region that is disposed perpendicularly to a work piece. The annular region includes a sputtering surface that provides for the deposition of a film onto a work piece. A central region is attached to one end of the annular region and provides an exposed surface that serves to receive direct deposition of particles sputtered from the annular region, that have transverse trajectories.

At page 3 of the Office Action, the Examiner asserts that Fu teaches a sputtering target having a central region comprising a non-sputterable material. The central region may be incorporated in a backing plate that can be made from aluminum or stainless steel. The annular region of the sputtering target may be made from aluminum or other target materials such as titanium. For the following reasons this rejection is respectfully traversed.

U.S. Application No. 10/036,338  
Amendment dated June 30, 2004  
Reply to Office Action dated April 2, 2004

Claim 41 and the claims dependent thereon now recite the presence of a strong (100) texture in the top portion. Fu fails to disclose the use of a sputtering material having a strong (100) texture. Therefore, Fu does not anticipate the claimed invention. Accordingly, the rejection should be withdrawn.

At page 4 of the Office Action, the Examiner rejects claims 41, 46-58, and 60-62 under 35 U.S.C. § 103(a) as being unpatentable over Fu (U.S. Patent No. 6,042,706) in view of Michaluk et al. (WO 00/31310). The Examiner argues that Michaluk et al. teaches a tantalum metal that can be used as a sputtering target. The Examiner further contends that the tantalum metal in Michaluk et al. can be partially recrystallized, can have a primary or mixed texture, and can have grain sizes of ASTM 7.1-7.2, 6.1-6.8, or 5.1-5.9. For the following reasons, this rejection is respectfully traversed.

At page 6 of the Office Action, the Examiner indicated that if claim 42 was rewritten as an independent claim incorporating the limitations of claim 41, claims 42-45 would be allowable. Applicant believes the claims as written are patentable. However, in order to expedite prosecution of the application, claim 42 has been cancelled and the limitations of claim 42 have been incorporated into independent claim 41, therefore, claims 41, 43-45, 47-58, and 60-62, should be allowable.

Claim 46 has been rewritten as an independent claim and amended to recite that the top portion of the sputtering target is made from copper. The use of copper, especially for its non-hydrating properties, is not disclosed in the Fu or Michaluk et al. references. Copper has very different chemical properties (ductility, melting point, and sputtering capability) from aluminum, stainless steel, or tantalum. There is also no teaching or suggestion in the cited art for the use of copper as a material for the top portion of a sputtering target. Therefore, using copper for this

U.S. Application No. 10/036,338  
Amendment dated June 30, 2004  
Reply to Office Action dated April 2, 2004

purpose is not an obvious variation. For these reasons, the Examiner's rejection should be withdrawn.

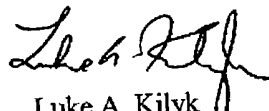
In the Office Action, the Examiner does indicate that claims 42-45 are allowable over the cited art of record. The applicants appreciate this indication of allowability. In view of the above comments, the applicants believe that all remaining claims are allowable.

**CONCLUSION**

In view of the foregoing remarks, the applicant respectfully requests the reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,

  
Luke A. Kilyk  
Reg. No. 33,251

Atty. Docket No. 00030CIP (3600-304-02)  
KILYK & BOWERSOX, P.L.L.C.  
53 A East Lee Street  
Warrenton, VA 20186  
Tel.: (540) 428-1701  
Fax: (540) 428-1720